

Notice of Allowability

Application No.

10/803,400

Examiner

Jessica L. Ward

Applicant(s)

EISENHAMMER ET AL.

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1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Interview Summary.
2. ☒ The allowed claim(s) is/are 1-9 and 18-22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20070712.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Continuation of Substance of Interview including description of the general nature of what was discussed:

Applicant agreed to insert --said-- before "deformation" in line 18 of Claim 1 to make it clear that this deformation is that carried out by the elastically deforming step. Applicant also agreed to insert --subsequently-- before "releasing" in line 20 of Claim 1 to make it clear that the releasing step takes place after contact is established between the substrates.

DETAILED ACTION

Response to Amendment

1. The rejection of claim 1 under 35 USC 103(a) as being unpatentable over Perego (EP 0 866 450) in view of Katsufumi (JP 2000-315338), as set forth in the previous action, has been withdrawn in light of the present amendment. An essential step in the process of Perego is deforming the substrates before applying adhesive thereto (column 7, lines 28-38). Therefore, neither Perego, nor Perego in view of Katsufumi, teaches or suggests applying the adhesive to the substrate(s), subsequently positioning the substrates in a vacuum chamber, and subsequently deforming the first substrate.

2. The rejection of claim 1 under 35 USC 103(a) as being unpatentable over Noriaki (JP 2003-006940) in view of Shizuki (JP 1-204727) and/or Kano (US 4990208), as set forth in the previous action, has been withdrawn in light of the present amendment. An essential step in the process of Noriaki is deforming the substrates before positioning them in the vacuum chamber (Figure 3; section [0022] of on-line translation). Therefore, neither Noriaki, nor Noriaki in view of Shizuki and/or Kano, teaches or suggests positioning the substrates in the vacuum chamber and subsequently deforming the first substrate.

3. The rejection of claim 1 under 35 USC 103(a) as being unpatentable over Eichlseder (DE 100 08 111) in view of Shizuki and/or Kano, as set forth in the previous action, has been withdrawn in light of the present amendment. An essential step in the process of Eichlseder is establishing contact between the substrates at an area adjacent edges of the bonding surfaces by blowing the substrates off their respective holders such that initial contact takes place at their centers and then spreads outward (Figure 2; section [0028]). Therefore, neither Eichlseder, nor

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Eichlseder in view of Shizuki and/or Kano, teaches or suggests upholding the deformation of the first substrate by mechanical means acting thereon while an area of contact adjacent edges of the bonding surfaces is established between the substrates.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Solomon on 7/12/07.

5. The application has been **amended** as follows:

Claim 1, line 18: --said-- was inserted before "deformation".

Claim 1, line 20: --subsequently-- was inserted before "releasing".

6. The following is an examiner's statement of **reasons for allowance**:

As to claim 1, please see comments in paragraphs 1-3 above.

As to claim 7, the prior art fails to teach or suggest a method of bonding disk-shaped substrates including the steps of deforming the first substrate to assume a **concave** shape and upholding the deformation by mechanical means acting on the first substrate **and** holding the first substrate in a **tilted** position with respect to the second substrate while moving the first and second substrates towards each other to establish an area of contact between them, thereby assuring that the area of contact is at first **restricted to a predefined sector of an annulus** adjacent **outer edges** of the first and second bonding surfaces.

Conclusion

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica L. Ward whose telephone number is 571-272-1223. The examiner can normally be reached on Mon-Fri between 9AM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard D. Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jessica L. Ward
Primary Examiner
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